

### **Remarks**

Claims 1-20 are pending in this application. The examiner has previously rejected claims 1-20 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,567,892 to Horst et al.

#### **A. Independent Claim 1**

Horst does not disclose the limitations of independent claim 1. Independent claim 1 requires, in part, “recording in a second non-volatile memory each rebuild command directed to the drive; and periodically causing the drive to flush its cache to cause the rebuild commands in the cache to be transmitted to the first non-volatile memory of the drive.” The system of Horst does not involve the use of a memory or journal that receives each rebuild command and works in conjunction with a cache to manage the rebuild of a drive.

The first cited portion of Horst describes writing command information to non-volatile memory, but does not connect writing command information to this non-volatile memory to periodically flushing the cache in order to preserve the integrity of data during a failure. (Horst, col.15:10-15) In addition, independent claim 1 requires “wherein each rebuild command directed to the drive is at least temporarily recorded in the second non-volatile memory during the period that the cache of the drive is enabled.” The second cited portion of Horst does not disclose storing each rebuild command at least temporarily in the non-volatile memory location. The cited portion of Horst discloses deferring and queuing completion interrupts until a flush of the write cache is completed. This does not teach or disclose “wherein each rebuild command directed to the drive is at least temporarily recorded in the second non-volatile memory during the period that the cache of the drive is enabled,” as required by independent claim 1 of the present application.

Horst does not collect rebuild commands in a journal pending the flushing of a cache during a rebuild process. At best, Horst describes the deferral and collection of “completion interrupt signals” until a prescribed period when the cache of Horst can be flushed and all of the collected completion interrupt signals can be delivered to the host. Horst states, “[w]rite completion interrupts for write operations that have been sent to the write cache 132 are queued in a Pending Completion Write Queue 170 (PCWQ) until a cache flush is performed.” (Horst, col.6:22-24) Horst goes on to state, “When the flushes are finished, the controller sends the queued completion interrupts to the host.” (Horst, col.7:43-45) This process is entirely different from the method of independent claim 1, which involves the collection of write commands in a journal until the cache is flushed to the drive being rebuilt. Saving write commands to a journal is not the same as saving completion interrupt signals to a queue. Additionally, the write commands are the commands themselves. In contrast, the completion interrupt signals of Horst are only an indication that a write is complete, and is not a write command itself.

Because Horst does not disclose each and every element of independent claim 1, a rejection of this claim on anticipation grounds is improper. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir 1987). “The identical invention must be shown in complete detail as is contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1336 (Fed. Cir 1989).

### **B. Independent Claim 5**

The Examiner rejected independent claim 5 in the office action mailed April 19, 2006 “with the same rationale as claim 1.” (Office Action mailed 4/19/2006, p.4) Additionally, the Examiner pointed to column 15, lines 10-15 of Horst as disclosing “a drive controller with a first memory that stores a history of write commands.” The cited portion of Horst does not discuss drive controllers. Thus, the cited portion of Horst does not disclose “wherein each drive controller comprises a first memory, wherein the first memory is operable to store a history of write commands transmitted from each drive controller to its associated drive,” as required by independent claim 5.

Additionally, for the same reasons as stated above regarding claim 1, Horst does not disclose collecting rebuild commands in a journal pending the flushing of a cache during a rebuild process. Because Horst does not disclose each and every element of independent claim 5, a rejection of this claim on anticipation grounds is improper.

### **C. Independent Claim 10**

The Examiner rejected independent claim 10 in the office action mailed April 19, 2006 “with the same rationale as claim 1.” Additionally, the Examiner pointed to column 15, lines 10-15 of Horst as disclosing “writing one or more commands to a journal.” (Office Action mailed 4/19/2006, p.4) The Examiner failed to address various elements of claim 10 independently, including the limitation “forcing the drive to flush the data in the write cache to the storage media,” which is not shown to be disclosed by Horst. Additionally, for the same reasons as stated above regarding claim 1, Horst does not disclose collecting rebuild commands in a journal pending the flushing of a cache during a rebuild process. Because Horst does not

disclose each and every element of independent claim 10, a rejection of this claim on anticipation grounds is improper.

**D. Independent Claim 18**

The Examiner rejected independent claim 18 in the office action mailed April 19, 2006 with the same rationale as independent claim 1 and dependent claim 3. For the same reasons as stated above regarding claim 1, Horst does not disclose collecting rebuild commands in a journal pending the flushing of a cache during a rebuild process. Because Horst does not disclose each and every element of independent claim 18, a rejection of this claim on anticipation grounds is improper.

**E. Dependent Claims**

Because claims 2-4, 6-9, 11-17, and 19-20 depend from claims 1, 5, 10, and 18, respectively, the rejection of these claims should be withdrawn, and the claims should be passed to issuance.

Respectfully submitted,



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